Commonwealth of Kentucky
Division for Air Quality

PERMIT APPLICATION SUMMARY FORM

(For all sources except PSD and true minor sources)
Completed by: Christina A. Forgacs

General Information

Name:	Riverside Generating Company, LLC
Address:	Lawrence County, Route 2, Near Catlettsburg, Kentucky
Date application received:	August 23, 1999
SIC/Source description:	4911/Electric Power Generation
AFS(10-digit) Plant ID:	21-127-00040
EIS #:	103-2140-0040
Application log number:	G253
Permit number:	V-99-051

Application Type/Permit Activity

[X] Initial issuance
[ ] Permit modification
__Administrative
__Minor
__Significant
[ ] Permit renewal
[ ] General permit
[ ] Conditional major
[X] Title V
[X] Synthetic minor
[ ] Operating
[X] Construction/operating

Compliance Summary

[ ] Source is out of compliance
[X] Compliance certification signed
[ ] Compliance schedule included

Applicable Requirements list

[ ] NSR	[X]	NSPS	[X] SIP
[ ] PSD	[ ]	NESHAPS/MACT	[ ] Other
[ ] Netted out of PSD/NSR	[ ]	Not major modification per 401 KAR 51:017,1(2)(b) or 51:052, 1(14)(b)	

Miscellaneous

[X] Acid rain source
[ ] Source subject to 112(r)
[ ] Source subject to 112(g) or 112(j) determination
[X] Source requested synthetic PTE limit to avoid major source requirement
[X] Source applied for federally enforceable emissions cap
[ ] Source requested plant-wide applicability limit (PAL)
[ ] Source provided terms for alternative operating scenarios
[ ] Source requested terms for operational flexibility
[ ] Source requested streamlining of multiple applicable requirements
[ ] Source requested monitoring plan to establish periodic monitoring
[ ] Application proposes new control technology
[X] Certified by responsible official
[X] Diagrams or drawings included
[ ] Confidential business information (CBI) submitted in application
[ ] Pollution Prevention Measures
[ ] Area is non-attainment (list pollutants):

Emissions Summary

Pollutant	Actual (tpy)	Potential (tpy)
PM_{10}	19.3	19.3
SO_2	7.3	7.3
NOx	245	245
CO	245	245
VOC	20.1	20.1
LEAD	0.07	0.07
HAP $\geq$ 10 tpy/25 tpy (by CAS)	NA	NA

* Emissions calculated for 4800 hours of operation per year or less for all three turbines combined. Includes gas heater and three combustion turbines. Other activities classed as insignificant.

SOURCE PROCESS DESCRIPTION:

The proposed project is to be located in Lawrence county, Kentucky near Catlettsburg. Riverside Generating Company of Houston, Texas is proposing to construct an independent power production facility, a peaking station, consisting of three simple-cycle gas-fired combustion turbines with three support units (a fuel gas heater of 4.92 MMBTU/hour fuel input capacity, a diesel-fired emergency generator (250 kW), and diesel-fired emergency fire water pump (310 hp)). Additionally, there will be a natural gas fuel handling system with minimal fugitive emissions. The three turbines will be Siemens-Westinghouse 501FD models, each with a maximum generation capacity of 208 MW and a nominal capacity of 176 MW. The combustion turbines have a maximum fuel input capacity of 2,076 MMBTU/hour. The turbines will be equipped with dry low-nitrogen oxide burners for NO_x emission control. The only fuel to be fired in the turbines is natural gas.

EMISSIONS AND OPERATING CAPS DESCRIPTION:

The permit and source will be a synthetic minor because potential emissions of greater than 250 tons per year are possible without the emissions cap being proposed for nitrogen oxides and carbon monoxide. The permittee has agreed to an emissions cap of 245 tons per year for all of the combustion turbines, total, and natural gas heater, based on any 12 consecutive months, for both nitrogen oxides and carbon monoxide to preclude Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality (PSD). The permittee will assure compliance for each pollutant with use of continuous emission monitors and calculations, a calculation procedure based on EPA methods to convert combustion turbine monitored concentrations to mass per unit time emission levels, and weekly monitoring of the hours of operation of each combustion turbine, monthly monitoring of hours of operation for the gas heater, and monthly tracking and totaling emissions on a rolling basis. Sulfur content of natural gas fuel is being limited to the amount proposed in the application of 1.0 grain/100 SCF in order to preclude Regulation 401 KAR 51:017 also. This is necessary because the NSPS (40 CFR 60 Subpart GG) limitation of 0.8 weight percent sulfur in fuel would result in potential emissions greater than PSD thresholds.

Hazardous air pollutant (HAP) emissions are estimated to be less than 10 tons/year of a single one, and less than 25 tons/year of any combination of HAPs given the limitations necessary to maintain the emissions caps for nitrogen oxides and carbon monoxide, estimated for 4800 hours of operation, total, for all turbines, therefore, case-by-case MACT should be precluded. The permittee may assure compliance by calculating HAP emissions and tracking and totaling emissions assuring Title V thresholds are not exceeded.